

REMARKS

By this response, claims 44 and 45 are newly presented. No new matter has been introduced. Proper support for the claims can be found in the specification and drawings. Claims 21-35, 38, 44 and 45 are now active for examination. The Office Action dated May 22, 2002 rejected claims 21 and 38 under 35 U.S.C. §102(b) as being anticipated by Mastromattei (U.S. Patent No. 5,485,410), and claims 21-35 and 38 under 35 U.S.C. §102(b) as being anticipated by Romain (FR 2 764 992) or Dale (U.S. Patent No. 5,531,030). The Office Action also objected to the specification for informalities.

The Examiner is thanked for the curtesy of an interview conducted on July 18, 2002, during which the Examiner's supervisor, Mr. Hilton, was also in attendance. Differences between the claims and the cited references were discussed. The rejections and objection are respectfully traversed in light of the remarks presented herein.

THE ANTICIPATION REJECTIONS ARE TRAVERSED

Independent claims 21 and 38 were rejected under 35 U.S.C. §102(b) as being anticipated by Mastromattei, Romain or Dale. The rejections are respectfully traversed because the cited references cannot support a prima facie case of anticipation.

A *prima facie* case of anticipation under 35 U.S.C. § 102 requires that a single prior art reference must disclose each and every element as set forth in the subject claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The cited references, however, do not meet these requirements.

Claim 21 is directed to a method for calibrating a measuring system as discussed above. The claim recites:

"A method for calibrating a machine measuring system...comprising the steps of: mounting a first calibration target in a predetermined relationship to the first measuring device...; mounting a third measuring device in a predetermined relationship to the second measuring device...; and using a computer, calculating a relative measuring-device position value of the machine measuring system representing the position of the first measuring device relative to the second measuring device based on a position of the first calibration target relative to the third measuring device."

Claim 38 includes limitations comparable to those of claim 21, except that claim 38 determines the position of a first device relative to a second device based on "the position of the calibration device relative to the first device, the position of the calibration target relative to the second device, and the position of the calibration device relative to the calibration target." In rejecting the claims, the Office Action contended that Mastromattei discloses every limitation of the claims. Applicants respectfully disagree.

Mastromattei is related to a tape measure having a calculator adapted thereto. There is no signal interconnection between the tape measure and the calculator. After a user conceives and reads readings from the tape measure, the user inputs the readings to the calculator for conducting calculations that the user deems fit (Fig. 1; col. 4, lns 44-48). Although the device disclosed by Mastromattei does not appear to be related to a machine vision measuring system, the Office Action contended that the claims read on the Mastromattei's device.

In rejecting claim 21, the Office Action asserted that the end of the tape is similar to the calibration target, that the tape is comparable to the first measuring device, that the body of the tape measure corresponds to the third measuring device, and that the corner edge of the device next to the tape is similar to the second measuring device (see Fig. 1). The Office speculated that, since a user may use the calculator of Mastromattei to conduct any calculation including calculating measurements, the Office Action contended

that Mastromattei thus also discloses "using a computer, calculating...the position of the first measuring device relative to the second measuring device based on a position of the first calibration target relative to the third measuring device," as required by claim 21.

It is respectfully submitted that the contentions in rejecting claim 21 are erroneous. According to Mastromattei, a user makes measurements using the measurement tape. The user then reads and perceives the readings of the measurement. The user then enters the measurements into the calculator either for storage or calculation. Thus, it is the user who reads and perceives the measurements, not the calculator. The calculator only passively receives entries from the user. Thus, the calculator of Mastromattei does not "calculat[e]...the position of the first measuring device relative to the second measuring device based on a position of the first calibration target relative to the third measuring device," as required by claim 21.

Even if a user may use the calculator to conduct calculations, based on the elements identified by the Office Action, the calculator of Mastromattei does not "calculat[e]...the position of the first measuring device (the tape) relative to the second measuring device (the corner edge of the device) based on a position of the first calibration target (the end of the tape) relative to the third measuring device (the body)," as required by claim 21, because according to Mastromattei, the position of *the tape* relative to *the corner edge of the device* is determined by the user, not the calculator.

Since Mastromattei does not disclose every limitation of the claim, Mastromattei cannot support a prima facie case of anticipation. The anticipation rejection is untenable and should be withdrawn. Favorable consideration of the claim is respectfully requested.

The Office also rejected claim 38 as being anticipated by Mastromattei. The Office Action, however, failed to discuss why and how Mastromattei discloses limitations of claim 38. It is respectfully requested that persuasive evidence be produced as to how Mastromattei discloses limitations of claim 38, or otherwise the claim should be allowed to issue.

Claims 21-35 and 38 were rejected under 35 U.S.C. §102(b) as being anticipated by FR 2 764 992 to Romain. In rejecting the claims, the Examiner simply asserted, in blanket, that Romain discloses every limitation of the claims without discussing any details. Such blanket assertion cannot support a prima facie case of anticipation. An anticipation rejection is proper only when "each and every element as set forth in the claim is found...in a single prior art reference." *Verdegaal Bros. v. Union oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987). However, since the Examiner failed to show how Romain discloses every limitation of the claims, the anticipation rejection is improper. It is respectfully requested that identification of corresponding elements and proper rationale or evidence supporting the rejection be provided, or otherwise the claims should be allowed to issue.

The Office Action also rejected claims 21-35 and 38 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent NO. 5,531,030 to Dale. The rejection is respectfully traversed because Dale does not teach every limitation of the claims.

q/- Dale is directed to an apparatus using additional sensors for monitoring calibration status of alignment sensors attached to vehicle wheels. According to Dale, primary sensors, detector 32 and emitter 30, are attached to two wheels LF, LR respectively for detecting positional data of the wheels. A wide angle point source of light 42 is located in vertical alignment with detector 32, and a narrow mirror 40 is mounted in vertical alignment with emitter 30 (Fig. 1; col. 3, lns. 45-55). Light source 42 emits a beam towards mirror 40, which is then reflected back to detector 30 only when the angle between the plane of rotation of wheel LR and the reference line extending between the sensors is zero degree. Thus, if the detector 32 and emitter 30 is in zero-set calibration, the output from the primary sensors should be zero degree when detector 32 detects the reflected beam. Otherwise, if the output from the primary sensor is different from zero when detector 32 detects the reflected beam, the sensors are out of calibration (col. 3, lns. 55-67).

Although the Office Action failed to specifically identify corresponding elements in Dale, the Office Action appeared to consider that detector 32 and emitter 30

correspond to the measuring devices of the claims, and that the light source 42 and mirror 40 correspond to the calibration measuring device and target. Applicants respectfully disagree.

20 According to Dale, the light source 42, mirror 40, and the primary detector 32 together provide an indication of whether the detector 32 and emitter 30 are in zero-set calibration: when the detector 32 detects the reflected light sent by light source 42, the reading on the detector has to be at zero degree. Thus, Dale merely uses the light source 42 and mirror 40 as a reference signal to compare with readings of detector 32. Dale does not calculate a value of the relative position between the light source 42 and mirror 40, let alone calculating relative positions of other devices based on such value. Thus, Dale fails to describe either "calculating a relative measuring-device position value of the machine measuring system representing the position of the first measuring device relative to the second measuring device based on a position of the first calibration target relative to the third measuring device," as required by claim 21, or "determining the position of the first device relative to the second device based on: the position of the calibration device relative to the first device; the position of the calibration target relative to the second device; and the position of the calibration relative device to the calibration target," as required by claim 38. Therefore, claims 21 and 38 are patentable over Dale.

Claims 22-35 depend on claim 21 and incorporate every limitation thereof. Thus, claims 22-35 are also patentable over Dale based on the same reasons discussed in claim 21 as well as on their own merits. Favorable consideration of the claims is respectfully requested.

NEW CLAIMS 44 AND 45

Claims 44 and 45 are newly presented. Claims 44 and 45 depend on claims 21 and 38 respectively, and incorporate every limitation thereof. Claims 44 and 45 further specify that the calibration target and device are optical, as suggested by the examiners

during the interview. As discussed earlier, claims 21 and 38 are patentable over the cited references. Therefore, claims 44 and 45 are also patentable over the cited references and are in proper form for allowance.

OBJECTION TO THE SPECIFICATION IS TRAVERSED

The specification is objected to for informalities. Specifically, the Examiner contended that the specification refers to "arrow 30," while arrow 30 is not present in the drawings. The objection is respectfully traversed because the element is clearly depicted in Fig. 1 clearly, where arrow 30 is shown near the wheels.

CONCLUSION

Therefore, the present application claims subject matter patentable over the references of record and is in condition for allowance. Favorable consideration is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY

A handwritten signature in black ink that reads "Wei-Chen Chen". The signature is written in a cursive, flowing style.

Wei-Chen Chen
Recognition Under 37 CFR 10.9(b)

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